

Research



Patent Boxes, Technological Innovation & Implications for Corporate Tax Reform

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EXECUTIVE SUMMARY AND OVERVIEW

Technological innovation is a main driver of worldwide productivity growth. Intellectual property (IP) is an aspect of technological innovation for many multinational firms. Often the IP does not have a clear geographical location and is inherently mobile across borders. For this reason, multinational firms use this feature to relocate their IP (and the associated income and expenses) to low-tax jurisdictions. This relocation serves to reduce the overall tax liability of multinational firms.

Over the past 15 years, many countries recognized this mobility of IP and implemented tax systems that allow for reduced tax rates on income derived from IP. These tax systems are designed with the goal of retaining IP within the country, which increases international competitiveness. Countries design patent boxes to stem this outflow and reap the benefits of increased productivity and sustained international competitiveness brought on by domestic technological innovation.

A patent box, sometimes referred to as an “IP box,” is the main tool used to reduce the taxes paid on income from IP. Patent boxes differ from tax credits for research and development (R&D), because patent boxes operate on the “back end” of the production cycle while R&D credits operate on the “front end” of the production cycle. Patent boxes apply after technologies are developed and are in place, by focusing on the sale and commercialization of existing IP assets. Countries design patent boxes to stem this outflow and reap the benefits of increased productivity and sustained international competitiveness brought on by domestic technological innovation.

I. DESIGN OF EXISTING PATENT BOX REGIMES

A. Current Law Covering Intellectual Property

Intangible property consists of things that do not necessarily have a physical form but can be commercially transferable, such as intellectual property or custom computer software. (All intellectual property is considered intangible property.) The purpose of intellectual property is to facilitate innovation and knowledge, while promoting fairness and certainty.

Intellectual property is a legal term to describe things that are a creation of the mind. A creation of the mind is a broad term, and therefore the term will thus cover a vast array of individual categories and activities. In the U.S., a person has a legal right to protect their IP.

There are many ways to infringe on a person’s IP rights including but not limited to software piracy, plagiarism, licensing violations, and the stealing of corporate secrets. Of these, licensing violations is the most common infringement. A person protects physical property with a lock or an alarm system, but a person protects IP with

a copyright, trademark, trade secret, or patent.

A patent provides the inventor with a limited-time monopoly over the use of the discovery in exchange for informing the public of the information, or invention. They own the rights, profit, and determine how and in what manner it is sold. The rationale for patent law is a social contract between the individual and the public, and that society should compensate a person who has created a beneficial service. Simply put, patent protection is about fairness.

The United States Patent and Trademark Office (USPTO) defines a patent as “the grant of a property right to the inventor” that gives the owner the power to “exclude others from making, using, offering for sale, selling, or importing the invention.” The USPTO will only grant patents for inventions that are: 1) new; 2) not obvious to the average person working in the field of the invention; 3) not momentary or a natural phenomenon; and 4) had some minimal utility. There are three primary types of patents the USPTO will grant: utility patents, design patents, and plant patents.

Recent legislation enacted in 2011, the Leahy–Smith America Invents Act (AIA), made both substantive and procedural changes to the U.S. patent process. The act, which is more than 150 pages and 137 sections, has been described as “the most comprehensive revisions of U.S. patent law in more than 50 years,” and even the USPTO has called it one of the most significant laws ever enacted by the U.S. since 1836.

The reasoning behind the revision was to “promote harmonization of the United States patent system with... nearly all other countries with which the United States conducts trade and thereby promote greater international uniformity and certainly in the procedures used for securing the exclusive rights of inventors to their discoveries.” Thus, it recognized that the U.S. was out-of-step with the rest of the world and U.S. patent holders were vulnerable to conflict with international patent enforcement provisions.

Another reason for the passage of the AIA was to address speculative patent litigation – trolling – by people that might attempt unwarranted allegations of patent infringement in order to seek monetary gain through the threat of enforcement. Patent trolls are also known as a non-practicing entity, patent assertion entity, or patent holding company.

Patent trolls typically rely on the complexity of patent laws against business who may have an inferior understanding. Thus, patent trolls usually avoid suing larger companies. The Boston University School of law study found that small and medium-sized entities made up 90 percent of the companies sued and accounted for 59 percent of the defenses in 2011.

However, the most important reform brought about by the AIA is the change in the right of priority from the “first-to-invent” to “first-inventor-to-file.” The patent priority rights deal with the situation when two applicants file for a patent for a nearly identical patent. Therefore the USPTO must decide which applicant is first in line, and has the right to file for a patent.

Before the AIA, the United States was the only country to follow the “first-to-invent” system for priority of patent applications. When there were conflicting patent claims, this system sought to establish the original and true inventor. This was a complex system involving lots of fact-finding, testimony, and a great deal of uncertainty. By contrast, the first-to-file system grants priority to the first inventor to file a patent application with the USPTO. This greatly reduced transaction costs and increased certainty in patent applications. Congress clearly stated that it refers to the first inventor to file with the USPTO, meaning a non-inventor applicant will not be granted a patent.

Intellectual property rights have, and continue to have, an important role in facilitating entrepreneurial growth, furthering scientific and economic progress. It serves an important role in protecting the inventions of people and the work of businesses. Copyright, trademark, trade secret, and patent protections stand on the front line of protecting these intellectual property rights. The USPTO is one of the United States’ oldest regulatory entities and continues to be active in protecting inventors and businesses.

The regulatory and structural changes that the AIA imposes help reduce transaction costs, increase certainty, and increase access to patent applicants. AIA’s change from a first-to-invent to first-to-file process of patent filing brings the United States’ patent law in line with the rest of international patent law. Alignment of U.S. and international patent law will now better afford patent protection for inventors and business. The AIA continues to reflect the long trend in the United States of protecting domestic intellectual property both domestically and internationally.

While the AIA made significant improvements to align the regulatory and structural environment for patents with that of international patent law, it did not address the differences in the tax treatment of intellectual property. Tax policy influences the development and commercialization of intellectual property through the treatment of: (1) expenses and income associated with developing intellectual property and (2) multinational corporations that use intellectual property commercially.

The first – domestic tax policy – influences the cost of innovation and the ability of researchers and innovators to recover their costs during (and after) the development phase. The second – international tax policy – influences the location decision of many large multinational corporations during the commercialization phase.

1. Domestic Tax Issues

U.S. tax policy offers only incentives for the costs of research and development of intellectual property. At this time, the deduction for current expenses is the only provision that is available to taxpayers. The tax credit (for current expenses) expired December 31, 2014 and has not yet been renewed by the Congress. However, this credit expires on a regular basis and is typically retroactively reinstated.

Research and Development Expenses – Taxpayers may deduct current research and experimentation costs under Internal Revenue Code section 174. The taxpayer may claim a deduction on their income tax return for the first tax year in which the costs are paid or incurred. Taxpayers must reduce their deductions allowed under section 174 the full amount of any research tax credit determined for the taxable year. However, the taxpayer may claim the full deduction and elect to claim a reduced research tax credit.

Research Credit – Taxpayer may claim a research credit equal to 20 percent of the incremental increase in the taxpayer’s qualified research expenses (Sec. 41(a)(1)). A 20-percent research tax credit also is available with respect to the excess of (1) 100 percent of corporate cash expenses (including grants or contributions) paid for basic research conducted by universities (and certain nonprofit scientific research organizations) over (2) the

sum of (a) the greater of two minimum basic research floors plus (b) an amount reflecting any decrease in non-research giving to universities by the corporation as compared to such giving during a fixed-base period, as adjusted for inflation (Sec. 41(a)(2)), referred to as the basic research credit (Sec. 41(e)). Finally, a research credit is available for a expenditures of energy research consortiums (Sec. 41(a)(3)), referred to as the energy research credit. Unlike the other research credits, the energy research credit applies to all qualified expenditures, not just those in excess of a base amount.

To claim the credit, the research must satisfy the requirements of section 174 and must be undertaken for the purpose of discovering technological information. The use of this information must be intended to develop a new or improved aspect of the business. In addition, substantially all of the activities must constitute experimentation for functional aspects, performance, reliability, or quality of an aspect of the business activities.

The research credit, including the basic research credit and the energy research credit, expires for amounts paid or incurred after December 31, 2014 and has not yet been extended for the current year. (Sec. 41(h)).

Eligible Expenses – Qualified research expenses include:

- in-house expenses of the taxpayer for wages and supplies attributable to qualified research;
- certain time-sharing costs for computer use in qualified research; and
- 65 percent of amounts paid or incurred by the taxpayer to certain other persons for qualified research conducted on the taxpayer's behalf (so-called contract research expenses).

Qualified research expenses include 100 percent of amounts paid or incurred by the taxpayer to an eligible small business, university, or Federal laboratory for qualified energy research (after consideration of the limitation for contract research expenses).

2. International Tax Issues

U.S. multinational corporations are subject to tax on their worldwide income. This system, despite foreign tax credits, tends to impose a higher rate of tax on income derived from foreign sources (relative to other countries).

The U.S. worldwide system means that income earned abroad may be subject to tax both in the country where the income is earned and the taxpayer's country of residence. The intent of the foreign tax credit is to provide relief from the potential double tax (i.e., the U.S. tax may be offset by taxes paid in the source country). However, the foreign tax credit rules are complex and include a number of limitations.

The complex foreign tax credit, combined with the relatively high U.S. corporation tax rates, often does not provide relief to taxpayers. Consequently, U.S. companies typically do not repatriate active foreign earnings. Estimates suggest that the amount of accumulated foreign earnings of U.S. companies exceeds \$2 trillion. A significant portion of these earnings were reinvested to expand the foreign operations of U.S. businesses to serve emerging markets.

In addition, analysis of these earnings that are not repatriated suggests that a significant portion of these earnings are from intellectual property (with over 20 percent of the \$2 trillion attributable to one U.S. technology firm). This is consistent with the significant growth over the past decade of income derived from such intangible assets, as patents, knowhow, and copyrights. The highly mobile nature of these assets means it is likely to be commercially viable in many global markets, which tends to increase its value.

However, the increase in intangible assets and growth in international trade means that (1) income earned within a country's borders is more difficult to measure and tax and (2) economic growth in other global markets makes available more capital and more capital mobility.

Recent testimony by Pam Olsen states:

“Many foreign governments have recognized the global mobility of capital and intangible assets and have come to view business income taxes as a competitive tool that can be used to attract investment. By reducing statutory corporate income tax rates, adding incentives for research and development, innovation, and knowledge creation, and adopting territorial systems that limit the income tax to activities within their borders, governments have sought to attract capital that will yield jobs, particularly high-skilled jobs for scientists, engineers, and corporate managers...U.S. international tax rules also are out of sync with the rest of the world...the vast majority of foreign governments have shifted their income taxes from a worldwide basis to a territorial basis that limits the tax base to income from activity within their borders; they have enacted anti-base erosion measures, but those measures are aimed at protecting their domestic tax base from erosion, not at preservation of a worldwide base.”

A number of European countries adopted policies that subject income derived from intellectual property to a lower tax rate. Countries implemented these policies, referred to as patent boxes or IP boxes, to ensure that future economic growth continues within their borders. The following sections describe the economic literature regarding tax incentives for intellectual property as well as the existing patent box regimes.

B. Literature Review

Economic literature supporting intellectual property fall into one of four related categories: (1) technological advances and growth; (2) tax incentives and technological advances; (3) effectiveness of tax incentives for research to develop technology; and (4) tax incentives for income derived from technology (e.g. patent boxes).

1. Technological Progress and Economic Growth

Technological progress emerges as the main driver of long-run economic growth in most economic research. Researchers attribute the knowledge generated from research activities as the foundation for technological progress. One important feature of knowledge is that one firm's use does not preclude another firm from using the same knowledge, meaning that without patent laws and restriction on use, other can commercialize the technologies to their own benefit.

Because of this feature, economists believe that the social return to knowledge and technological progress often exceeds the private return. This discrepancy in return, may cause firms to underinvest in research (relative to what is socially optimal).

Patent laws exist to address this feature and provide the exclusive right to commercialize the technological advance for a fixed period of time. Economists believe that patents offer a temporary monopoly to allow firms to capitalize on the application of this knowledge and encouraging additional investment activities in technological research.

2. Tax Policy and Innovation

Tax subsidies are a method of inducing firms to undertake additional research and development activities. As

mentioned previously, the U.S. tax system generally offers two tax benefits for research activities: tax credits for research activity and current expensing of research-related expenditures. These two types of benefits each carry different incentives with potentially different effects on research activity. For example, the research credit is incremental and only benefits the expansion of research expenditures over prior year levels. To the extent that firms respond to tax credits (by lowering their costs), the research tax credit should increase research activities each year. However, the present law research credit contains certain complexities and compliance costs that diminish its usefulness; thus making expensing of research costs preferable to incremental credits.

3. Effectiveness of R&D Credits

Most published studies report that research credits induce increases in research spending. Generally, these empirical studies of the research credit suggest that the price elasticity for research is one. Or alternatively, an additional dollar of the research credit generates an additional dollar of investment in research. However, these studies report a range of estimates of the price elasticity for research.

One of the issues with evaluating the effectiveness of tax credits and deductions (or expensing) of research spending is that it focuses exclusively on the development costs. Patent boxes differ from tax credits for research and development, because patent boxes operate on the “back end” of the production cycle while R&D credits operate on the “front end.” Patent boxes apply after technologies are developed and are in place, by focusing on the sale and commercialization of existing IP assets.

Countries design patent boxes to stimulate research activities, maintain technological advances within their borders, stem the outflow of technology, and reap the benefits of increased productivity derived from domestic technological research.

4. Research on Patent Box Effectiveness

While patent box tax regimes have been in place since 2001, widespread use of patent boxes has been limited to periods after 2007. This limited experience means there is a limited amount of empirical evidence, which makes evaluating the policy’s efficacy difficult.

However, prior to the implementation of patent boxes, a number of economic studies considered the potential for tax benefits to influence the location of IP and since the implementation, a limited number of studies review the available evidence.

Prior to implementation, two recent studies considered the effect of tax policy to influence the location decisions of intellectual property. These studies, by Griffith, Miller and O’Connell and Bohm, Karkinsky, and Riedel concluded that tax rate was an important aspect of the location choice. The authors focus their analysis on intellectual property and patent boxes, but Grubert had established previously the economic theory of taxes and multinational location choices for intellectual property.

Following implementation, Hassbring and Edwall evaluated data from 21 OECD countries and concluded that patent box regimes have a positive effect on the number of patent applications to the European Patent Office. Their analysis found that domestic inventors had a 14.6 percent increase and foreign investors had a 20.6 percent increase in their propensity to patent.

Evers, Miller, and Spengel incorporate the existing patent box regimes into measure of the cost of capital and

average effective tax rates. Their results indicate that regimes allowing a deduction for research expenses at the regular corporate tax rate (rather than the lower patent box rate) could result in negative average effective tax rates. They believe that this feature creates a subsidy to unprofitable projects and affects firm decision making, particularly when countries have significant differences in their patent box regimes.

Other recent empirical studies show that European firms' intellectual property is more likely to be held in low-tax subsidiaries than tangible assets (Dischinger and Riedel) and that the location of patents is responsive to corporate income tax (Griffith, Miller, and O'Connel).

As empirical evidence on firm location choices, patent filings, and tax revenues become available, it is likely to demonstrate that patent boxes continue to have a significant influence on multinational corporation behavior. However, it is also likely that, without the proper design, countries may find that they are competing against one another to gain and retain firms holding the patents for intellectual property. The following sections identify the twelve existing patent box regimes in Europe and provide the framework for a U.S. system.

C. Existing Patent Box Regimes

A number of countries have enacted patent box regimes. These tax regimes subject income attributable to intellectual property at a lower, preferential rate to promote domestic investment in research and development. However, some of the patent box regimes adopted by countries do not require the company to develop IP in the country or acquire domestic IP. This means that the benefits of the patent box is not encouraging domestic investment in research and development, but rather competing for multinational firms that have already commercialized their IP.

Policymakers in the European countries with patent box regimes often sought to implement this legislation to ensure that companies locate within their borders to influence future investments relating to the IP. Much of the patent box research divides patent boxes into two broad categories. The first applies a reduced tax rates on qualifying income (e.g. France, Netherlands, and the UK). The second provides an exemption for a portion of revenues attributable to the IP (e.g. Belgium, Hungary, Luxembourg, Spain, and Cyprus). While these approaches are different in technical terms, the effects of the regimes are quite similar. However, what does create significant differences in the effects of the patent box regime is the revenue base on which the tax rate (or exemption) applies.

In addition, the partial exemption of revenues or the exclusion of a portion of IP income can result in increase in loss carry-forward, which means the firm may be able to benefit from the patent box regime in later periods. In contrast, the regimes that apply a specific rate to IP income do not result in the carry-forward of current losses.

Other features that affect (limit or expand the benefits) the patent box regime include the: (1) types of eligible IP; (2) definition of qualifying income; and (3) treatment of R&D expenses.

1. Belgium – In 2007, Belgium introduced the patent income deduction that allows a Belgian firm (including a Belgian permanent establishment) to deduct 80 percent of qualifying gross patent income. This deduction means that the 33.99 percent corporation tax decreases to an effective tax 6.8 percent rate for qualifying income.

The regime applies specifically to qualifying patents, but does not apply to other rights (know-how, trademarks, designs, models, secret recipes or process, and information concerning experience with respect to trade or science). However, if the firm can establish that any of these other rights are related closely to the patent, then

they may apply the patent income deduction.

Unlike other countries, Belgium limits the deduction to patents developed entirely or partially by the Belgian firm (or permanent establishment). Only improvements on acquired patents extend to patents developed outside of the country and in this case, a Belgian entity must own the research center, despite being located outside of the country.

2. Cyprus – In 2012, Cyprus introduced measures to promote economic growth, including tax incentives to encourage intellectual property rights (IP box). They took these steps to remain in sync with other European countries and to allow cross-border planning for highly mobile IP.

These provisions apply to all expenditure for the acquisition or development of intangible assets held by businesses located in Cyprus. Eligible assets include all categories of intellectual property. In addition, these assets may be developed internally or acquired.

Cyprus allows a four-fifths deduction of profits derived from intangible property. The law effectively excludes 80 percent of income after deducting the costs associated with earning that income. Stated another way, in Cyprus only 20 percent of profits are subject to tax. This means that the effective tax rate falls from 12.5 percent to 2.5 percent for profits derived from IP assets.

3. France – The French patent box regime was first introduced in 2000 (effective in 2001) and amended twice, in 2005 and 2010. France allows revenue or gain deriving from the license, sublicense, sale or transfer of qualified intellectual property to be taxed at 15.5 percent if it meets certain conditions. The French regime differs from others in that it offers a different tax rate for income derived from IP.

Income from patents which have been granted in France, the United Kingdom, and by the European Patent Office or specified European countries is eligible for the preferential tax treatment. If France would have granted a patent to qualified intellectual property located outside of France (if the patent is owned by a French company and subject to the conditions of the European Patent Office), the foreign patent would also be eligible. France does not include such intellectual property rights as trademarks, design rights and copyrights.

French companies must own the intellectual property rights, or the French company must have full ownership of rights received under license agreements. In other words, France allows both internally developed and acquired patents to qualify for the reduced tax rate – if the patent is held by a French company.

4. Hungary – In 2003, Hungary introduced their patent box regime. They allow a deduction of 50 percent of the royalties received, which reduces the corporate tax rate of 19 percent to an effective 9.5 percent tax rate. In addition, Hungary limits the 50 percent deduction to 50 percent of the overall profits derived from IP.

Eligible intellectual property includes broadly patents, know-how, trademarks, business names, and copyrights. The IP may be either developed internally or acquired. However, the patent box regime does not apply to IP that is acquired when it is held for less than 2 years. Hungary also has broad definitions of qualifying income and allows income earned from third-party licensing.

5. *Liechtenstein* – In 2011, Liechtenstein introduced a tax reform which included changes to the tax imposed on intellectual property. The patent box regime allows a business to deduct 80 percent of the profits derived from IP when calculating corporation tax, reducing the rate from 12.5 to an effective 2.5 percent tax rate.

Liechtenstein has a broad definition of eligible IP; covering both internally developed and acquired IP. The definition of income derived from IP is similarly broad, including income earned from group companies as well as third-party licensing.

IP profits means IP income less all expenses connected with the IP (including amortization and similar deductions), regardless of when the firm incurred these expenses.

6. *Luxembourg* – Luxembourg provides an 80 percent tax exemption (resulting in a 5.76 effective tax rate) for the net income derived from qualified intellectual property rights. These property rights may be developed internally or acquired after December 31, 2007. Eligible IP includes patents, trademarks, designs, domain names, models and software copyrights. (Know-how, copyrights not related to software, formulas and client lists do not qualify.)

The Luxembourg company own the intellectual property rights, and the rights must give the company exclusive exploitation rights. Generally, existing IP acquired from a related company is eligible for the patent box regime, if it is acquired after 2007.

7. *Malta* – In 2010, Malta began offering the most generous patent box policy in the EU, by fully exempting royalties and income from qualifying patents. Apart from directly holding patents or other intellectual property, the Malta company may also own other corporate entities and maintain the tax benefit with respect to dividends received.

Both patents granted in Malta and those granted in another country are eligible (provided the same invention is considered patentable under Maltese Law or is the result of Fundamental Research, Industrial Research or Experimental Development). Eligible patents do not have to be registered in Malta and the company is not required to conduct research, experimentation or development of the relevant invention in Malta.

8. *Netherlands* – In 2007, the Netherlands introduced a patent box regime with a 10 percent tax rate. They expanded the regime in 2010 to offer a reduced rate of 5 percent and changed the name to “Innovation Box.”

Dutch resident companies and Dutch permanent establishments that are subject to tax in the Netherlands are eligible for the reduced tax on income derived from IP. The Dutch company must be the economic owner of the intellectual property and bear the risks associated with that ownership. The 5 percent rate applies to the income from a qualifying intangible to the extent the income exceeds certain expenses, including related research and development and amortization expenses.

The innovation box covers income from both internally developed (requires a declaration from the Dutch government) and acquired patents. However the Netherlands does not include trademarks, non-technical design rights and literary copyrights. Losses from qualified intangible property are deductible at the full corporate tax rate, but must be recovered in future years before the lower rate applies.

9. *Portugal* – In 2014, Portugal introduced a new Corporate Income Tax Code, which includes a patent box regime for qualified IP activities. Portugal exempts 50 percent of the gross income derived from patents,

industrial designs or models (or other IP rights which are protected) from corporate tax. Portugal does not extend the tax treatment to trademarks or any other IP, except those mentioned above.

In addition, the Portuguese regime provides that companies may deduct all costs associated with the development of the IP. And they apply the patent box regime to income paid from related parties, subject to the transfer pricing rules. However, it does not apply to income if the transfer is from a country that Portugal deems a tax haven (or blacklisted jurisdiction). The regime applies to income received from related and unrelated parties (with certain restrictions). The IP must be self-developed and used for business activities. In addition, if the licensee is a related company, the IP cannot be used to generate deductible expenses for the taxpayer.

For certain districts within Portugal (Madeira), the new corporation tax in was reduced to 5 percent until 2020, which means that the effective rate on income derived from IP is 2.5 percent for this region. Generally, the corporation rate is 30 percent with a 15 percent effective rate applied to income generated from IP.

10. Spain – In 2007, Spain adopted a patent box regime that applies a reduced tax rate to corporate income derived from licensing the right to exploit intangible assets. In 2013, legislation altered significantly the patent box regime to allow transfers and licensing activities, base the tax computation on net rather than gross income, and eliminate the limit on income that firms may exempt.

Currently, Spain exempts 60 percent of net income derived from the license or transfer of the right to use qualifying intellectual property. This reduces the corporate rate from 30 percent to a 12 percent effective tax rate on qualifying income.

Intellectual property eligible for the preferential treatment includes patents, drawings or models, plans, secret formulas or procedures, and rights on information related to industrial, commercial, or scientific experiments. The patent box regime does not distinguish between intellectual property income from foreign and domestic sources.

11. Switzerland – In 2011, the Swiss canton of Nidwalden introduced a patent box regime referred to as the “License Box.” The License Box exempts 80 percent of net license income and offers a net 8.8 effective tax rate on license income. License income includes payments received for use of certain intellectual property, including copyright, patents, trademarks, design or model, plans, secret formulas or process, and information concerning industrial, commercial, or scientific experience.

In addition, the net income calculation includes a deduction for a proportion of finance and administrative expenses, tax expenses, depreciation, and license payments to other companies. R&D expenses are not included in the net income calculation, but they remain available for deduction against income subject to tax at the full corporate rate.

The preferential rate applies to existing and new IP, as well as internally developed and acquired IP.

12. United Kingdom – In 2013, the phase in of the U.K.’s patent box regime began. The partial benefits begin to apply to profits of a U.K. company or a U.K. permanent establishment after April 1, 2013. The tax rate applied to income from patented inventions (and certain other innovations) is 10 percent. The United Kingdom Intellectual Property Office or European Patent Office must grant the patent.

In some cases, certain know-how, trade secrets and some software copyrights that are closely associated with a

qualifying patent may also be eligible for the 10 percent tax rate on income generated from the IP. However, trademarks and registered designs are not eligible for the tax treatment.

To qualify, a company must have legal ownership of the patent or qualifying intellectual property right or acquire an exclusive license to the intellectual property. The patent or product which incorporates the patent must have been developed by a related company (in the worldwide corporate group). However, the U.K. does not require that the research and development occur in the United Kingdom or by a U.K. company.

Following the introduction of the U.K. regime, the European Commission announced that it was investigating the various patent box regimes indicating that the schemes breached European Union codes of conduct for business taxation. However, since that time, the OECD and G20 member countries reached an agreement on a ‘modified nexus approach. This agreement means that most existing patent box regimes will need to implement changes to remain compliant. The European Commission dropped its investigation just before the OECD and G20 member countries announced the terms of the agreement.

Generally, the nexus agreement relies on a ‘substantial activity’ requirement, which means that the income receiving tax benefits must relate directly to the activity contributing to the income. In other words, the agreement seeks to link income from the IP to the research and development activity. This essentially eliminates outsourcing of research and development activities, which many countries now allow. While the new agreement has not yet been implemented, and there may be barriers to implementation (e.g. the agreement requires a track and trace system for the IP which could be costly and complicated). Further, the agreement includes a grandfather period that may induce businesses to enter into existing patent box regimes to maximize the available benefits.

The following table provides a side-by-side comparison of the current features of the existing European patent box regimes (prior to any changes to existing regimes).

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D. Designing a Patent Box for the United States

There are a number of features to consider for any patent box introduced in the United States. The following list includes the primary features to consider:

1. Offer a reduced tax rate (ranging between 10 and 15 percent) on income derived from IP;
2. Limit the patent box regime to commercialization activities conducted in the United States;
3. Require that the patented products result from domestic R&D;
4. Apply the preferential rate to existing patents issued by the USPTO, as long as they meet the domestic R&D requirement;

5. Apply the patent box regime to worldwide income derived from the patent (developed domestically); and
6. Allow firms to deduct losses and expenses associated with the qualified IP at the maximum corporate rate; and
7. Provide careful definitions of the types of income eligible for the rate and the method for calculating the income.

In addition, design issues should consider the degree to which the patent or IP influences the ultimate product. For instance, in the United Kingdom, income from the sale of items that incorporate qualifying IP are exempt from tax. (For example, if a company sells a car that has qualifying IP, the revenue generated from the car sale qualifies for the patent box regime in the United Kingdom.) Other countries place limitations on the degree of the contribution. However, a balance between the scope of qualifying IP and the contribution of the IP to related products must be considered.

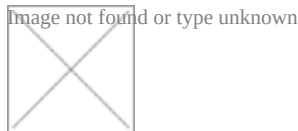
Provisions or modifications to the above features that would limit the initial revenue losses associated with a U.S. patent box regime include:

1. Phase out the preferential rate, when the income derived from the IP exceeds a certain multiple of the R&D expenditures (e.g., 5 times the R&D expenses);
2. Limit the application of the tax regime to patents issued by the USPTO, prospectively; and
3. Allow firms to deduct losses and expenses associated with the qualified IP from the income generated from the IP (deducted from income subject to the lower rate).

In addition, any U.S. system would have to consider how to treat the past foreign earnings that U.S. companies did not repatriate that are attributable to U.S. patents (developed and licensed domestically, but commercialized abroad).

II. REVENUE IMPLICATIONS OF IMPLEMENTING A U.S. PATENT BOX

We provide two sets of revenue estimates for implementing a patent box regime in the United States. Under the first scenario, we assume that present law is in effect and that the patent box provision is “standalone.” In the second scenario, we assume the patent box is part of a larger, comprehensive corporate tax reform initiative. Under of each of these scenarios we assume the patent box provision is effective for income earned on or after January 1, 2016. For comparison purposes, we provide two alternative estimates that are identical to Options 1 and 2, but apply to income earned for patents granted on or after January 1, 2016. Table 2 summarizes the revenue effects for fiscal years 2016 to 2025:



In preparing our estimates, we relied on a patent box design that mirrors the recent approach adopted in the United Kingdom with several modifications:

- We assume a reduced tax rate on qualified income from patents of 15 percent.
- We assume that only C-corporations are eligible for the reduced tax rate.
- We limit the patent box regime to commercial activities conducted in the US.
- Require that the patented products result from domestic R&D.

- Apply the preferential rate to existing patents issued by the USPTO, as long as they meet the domestic R&D requirement.
- Apply the patent box regime to worldwide income derived from the patent (developed domestically).
- Qualifying income includes income from royalties on patents.

A. Standalone Patent Box Proposal

Our estimate of the revenue effect of implementing a U.S. patent box reflect our assumption that certain income derived from patents will be considered “qualifying income” and be eligible for the 15 percent preferential tax rate. In order to estimate the share of income that would become eligible for this rate, we rely on investment data from the Bureau of Economic Analysis by industry and type of property. Table 3 shows this breakdown for 2013, the most recent year data are available.

Table 3 – Investment in Private Non-Residential Fixed Assets, by Industry and Type of Property



We rely on Quantria Strategies’ Corporate Income Tax (CIT) model to calculate income before tax and then rely on the BEA figures, by industry, to determine the share of this income that would be eligible for the reduced tax rate. We then calculate income tax after credits under the new preferential tax rate. This results in a preliminary “static” revenue estimate.

To this preliminary calculation we make an additional assumption with respect to the repatriation of foreign earnings that are likely to be brought back to the U.S. to take advantage of the lower tax rate on patent income. In arriving at this figure, we rely on our database of financial information reported on Form 10K for the S&P 500 along with recent calculations from Credit Suisse on the amount of foreign earnings that are likely to remain overseas. For 2014, this figure is estimated to be -\$158 billion. The figure does not include foreign earnings that are likely to be repatriated to U.S. parents regardless of the implementation of a patent box.

To determine the income attributable to U.S. patents granted on or after January 1, 2016, we rely on historical trends reported by the USPTO (see Appendix A). Our estimates of each of these provisions are contained in Tables 4 and 5.



B. Patent Boxes as Part of Fundamental Corporate Tax Reform

If a U.S. patent box regime is implemented as part of a larger, comprehensive corporate tax reform effort, the revenue estimates are substantially different. For purposes of calculating these effects, we rely on the tax reform proposal put forth by the American Action Forum in 2013. The main features of this reform are:

- Modifications of tax expenditures affecting all businesses.
- Accelerated depreciation is retained.
- Present law deduction for corporate interest expense is repealed.
- 100 percent Bonus Depreciation is made permanent.
- A maximum corporate tax rate of 29.25 percent is adopted.
- Revenue-neutral international tax reform is implemented.

Deciding on the design of a revenue-neutral international tax system could have important effects on the revenue estimate of a U.S. patent box. Our estimates below assume that international reforms follow the general outline of Rep. Camp's tax reform plan. In particular, we assume the following features are in place:

- Some type of territorial international tax regime is adopted.
- A deemed repatriation of foreign earnings is implemented.
- Anti-base erosion rules in line with the Camp plan (i.e., Option C) are adopted.

Tables 6 and 7 show our estimates of a U.S. patent box as part of fundamental corporate tax reform.

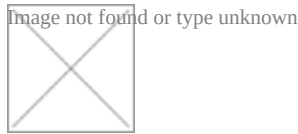


We point out that the revenue estimates are quite sensitive to the types of corporate tax reforms that are adopted and these are likely to have complex interactions. For example, if a lower corporate tax rate, say 25 percent, is put in place this will affect future repatriated earnings under a territorial tax system. However, if the lower rate is combined with repeal of MACRS, this could work in the opposite direction as firms increasingly move operations to low-taxed jurisdictions as they see their cost-of-capital go up.

C. Revenue Effects if the Patent Box Rate were lowered to 10 Percent

Because the behavioral and interaction effects of implementing a patent box regime in the U.S. are complex, it is useful to examine how the revenue effects might change if the preferential tax rate were lowered to 10 percent. These behavioral effects include the repatriation of foreign earnings and the taxes paid on those earnings. Under a 10 percent patent box, we would expect an increase in repatriated earnings that would somewhat offset the lower tax rate. Table 8 shows our estimate of these effects. Revenue losses are, as

expected, somewhat higher under this scenario for all four sets of assumptions. Again, it is important to note that, with respect to the estimates under fundamental corporate tax reform, these effects are calculated after the reforms are put into place (i.e., stacked last). In particular, this assumption means that some of the increase in repatriated earnings that would be realized under current law would be attributable to broader corporate reforms (e.g., lower rate and international tax reform) and not the patent box proposal.



APPENDIX A – PRIMER ON INTELLECTUAL PROPERTY RIGHTS IN THE UNITED STATES

The Basics of Intellectual Property Rights

In the United States of America there are two types of property: tangible property and intangible property. Tangible property includes physical objects, such as real estate or a house. Intangible property consists of things that do not necessarily have a physical form but can be commercially transferable, such as stocks or custom computer software. All intellectual property is considered intangible property. The purpose of intellectual property is to facilitate innovation and knowledge, while promoting fairness and certainty.

Intellectual property (IP) is a legal term to describe things that are a creation of the mind. A creation of the mind is a broad term, and therefore the term will thus cover a vast array of individual categories and activities. In the U.S. a person has a legal right to protect their IP.

A person stealing another person’s car is called theft, but the stealing of a person’s IP is called infringement. Our courts are the ones who decide what constitutes infringement. There are many ways to infringe on a person’s IP rights including but not limited to software piracy, plagiarism, licensing violations, and the stealing of corporate secrets. Of these, licensing violations is the most common infringement. A person protects physical property with a lock or an alarm system, but a person protects IP with a copyright, trademark, trade secret, or patent.

A copyright is a type of safeguard designed to protect creators of any “original works of authorship.” A copyright protects an original work regardless of whether it is published or unpublished. For example, if a person found a code for software lying on the table of Starbucks, he could not then use, or sell, the contents of the paper for financial gain. It is the original author’s work. Copyright protection applies the instant the original work is created in a tangible form, such as writing the idea down [not simply the idea to create the work]. The moment the author writes it down it is the author’s property and copyright protected. There must be some proof that it is yours and simply stating “it was my idea” is insufficient. This type of IP right frequently protects academics and artists. Plagiarism is a common form of copyright infringement. An original author’s copyright will last for the duration of the person’s life plus seventy years.

A trademark can be understood as a business’ unique name that helps a consumer know precisely which business they are dealing with. The U.S. Patent and Trademark Office (USPTO) describes a trademark as “any word, name symbol, or device, or any combination, used, or intended to be used, in commerce to identify and distinguish the goods of one manufacturer or seller from goods manufactured or sold by others.” This protection

is particularly useful because the relationship between buyers and businesses are increasingly impersonal and at arm's length. It benefits businesses by protecting them from other sellers' free-riding on the reputation that their business has established. Think about the many knock-off items sold abroad, such as fake Apple Inc. products, such as iPhones® sold throughout China. A trademark protection can last as long as the trademark is used in commerce.

A trade secret protects a wide arrange of a company's particular method of generating a business or a product. The U.S. code broadly defines trade secret as "all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing." Protection of the trade secret will apply if the following conditions are met: (1) it is not generally known to the public; (2) confers some sort of economic benefit on its holder; and (3) some sort of reasonable effort to keep it secret. Examples of trade secrets include Coca-Cola's receipt or a computer company's software source code. A trade secret may last indefinitely, so long as the secret is "commercially valuable, its value derives from the fact that it is secret, and the owner take reasonable precautions to maintain its secrecy."

A patent provides the inventor with a limited-time monopoly over the use of the discovery in exchange for informing the public of the information, or invention. They own the rights, profit, and determine how and in what manner it is sold. The rationale for patent law is a social contract between the individual and the public, and that society should compensate a person who has created a beneficial service. Simply put, patent protection is about fairness. The USPTO defines a patent as "the grant of a property right to the inventor" that gives the owner the power to "exclude others from making, using, offering for sale, selling, or importing the invention." The USPTO will only grant patents for inventions that are: 1) new; 2) not obvious to the average person working in the field of the invention; 3) not momentary or a natural phenomenon; and 4) had some minimal utility. There are three primary types of patents the USPTO will grant: utility patents, design patents, and plant patents. The graph below shows the types of patents granted by the USPTO from 1790 to 2010:

Graph 1 – Patents Granted by the USPTO, 1790 to 2010

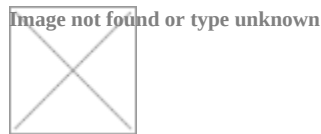


A utility patent is issued for inventing a new and useful process, machine, manufacture, or composition of matter, or a new and useful improvement. The vast majority of all patents granted by the USPTIO are utility patents. These are the types of inventions, methods, one typically thinks of when we think of patent protection. Thomas Edison's light bulb or Apple's silent button feature are both examples of utility patents. On the other hand, design patents protect the way that an invention looks. Design patents issued for a new, original, an ornamental design embodied in or applied to an article of manufacture. Examples of design patents include computer icons or soft drink bottles. Lastly, plant patents are issued for a new verity of asexual plant. Drought resistant plants created by Monsanto for use in farming are an example of a plant patent.

Patent Application

A patent is granted by the USPTO and the grant will generally last for 20 years from the date of the application. Unlike all other types of patents, a design patent will only last fourteen years from the date of the application. A patent is applied for by submitting a patent application to the USPTO. The application must conform to federal laws, rules and guidelines outlined in the Manual of Patent Examining Procedure. While a patent can last up to 20 years there are three maintenance fees that must be paid at 3 to 3.5 years, 7 to 7.5 years, and 11 to 11.5 years after the date of issue. These three fees cannot be paid early, and if the fees are not paid on time the patent protection will expire.

Figure 1 – Patent Examining Procedure



The figure published by the USPTO above is helpful in listing the steps that should be taken in order to apply for a design, utility, or plant patent for an invention. While not required, the USPTO recommends that an applicant hire a patent attorney when an applicant applies for a patent.

The USPTO approximates that the process of applying for and being granted a patent takes between one to four years, with the average wait being three years. The USPTO will decide whether to grant a patent by considering if the application fully complies with the patent application requirements. To be patentable, an invention or process must be “useful, novel and nonobvious.” An invention is useful if it is “operable and provides a tangible benefit.” An invention satisfies the novel requirement if it is not “fully anticipated by prior patent, publication, or other state-of-the-art knowledge” which is known as prior art. The requirement of nonobvious is met when the invention is not easily known by an expert, or skilled person, in the same field of expertise. Patent applicants must also include a definition of what the applicant believes would be infringement upon their invention. The application must disclose the best mode, or favored way, to use the invention. There is a one-year grace period from when the inventor announces his invention to the public, and where the inventor can decide whether to file for a patent to protect his rights. This grace period is designed to help “encourage early public disclosure of new inventions,” while also providing a safeguard for inventors.

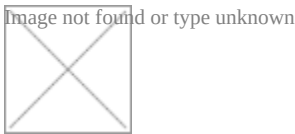
The USPTO allows for the filling of a non-provisional patent application that secures his spot (priority) in line by establishing his filing date. A non-provisional patent application need not be submitted with supporting documents. However, the one-year grace period begins at that moment, and he would need to file a standard provisional patent application within the one-year time period or the application will be deemed abandoned. The figure below illustrates helps illustrate the how both non-provisional and provisional patents fit into the patent process:

Figure 2 – Patent Processes



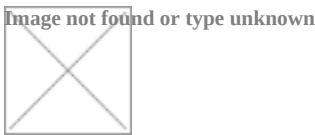
Patents are not self-enforcing. If there is a patent infringement then a lawsuit, or legal complaint, must be filed

to enforce the patent holder’s rights and stop the violator’s bad behavior. Patent state courts do not have jurisdiction to hear patent claims. It is the federal circuit courts that has jurisdiction over patent cases and decide the outcome of patent lawsuits. The table below lists fees associated for the different entities:

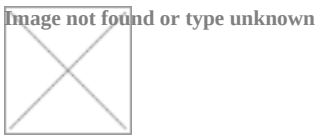


The International Property Rights Index (IPRI) reports and compares on the status of property rights in countries across the world. The study is based on three core components: legal and political environment, physical property rights, and intellectual property rights. The intellectual property rights factor is composed of the protection of intellectual property rights, patent protection, and copyright piracy. IPRI ranks the United States seventeenth and in the second quartile in the protection of intellectual property.

Table 10 – International Property Rights Rankings, 2014



Source: Intellectual Property Rights Index
Figure 3 – International Property Rights Index, 2014



Source: Intellectual Property Rights Index

History of Patent Law

Patents are an old concept that predates the founding of the United States. In fact, the first known patent was issued in England in 1331 and the Massachusetts Bay Colony issued the earliest known patent in America in the 1640s. The congressional power to create patent laws derives from Article I, Section 8, Clause 8 of the U.S. Constitution, which states Congress has the power “to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S patent laws have been significantly revised only a few times since the first Patent Act of 1790, such as in 1793, 1836, 1839, 1939, 1952, 1994, 1999, and 2011.

The first federal Patent Act of 1790 was entitled “An Act to promote the Progress of Useful Arts.” At the time “useful arts” generally meant the work of skilled workers and artisans, particular engineers and manufacturers. Any two of the Secretary of War, Secretary of State, or Attorney General were given the power to grant a patent for useful inventions for up to fourteen years.

The Patent Act of 1793 expanded the definition of “useful arts” from the narrow scope of engineers and manufactures to more general skills. The Act now included, “any new and useful art, machine, manufacture or composition of matter and any new and useful improvement on any art, machine, manufacture or composition of matter.” An applicant had to submit clear written description of the invention, the manner of using or creating, in order “distinguish the same from all other things before known, and to enable any person skilled in the art or science, of which it is a [part], or with which it is most nearly connected, to make, compound, and use the same.” The Act was first to recognize potential conflicting patents. The Act stated that a holder of a patent on a particular improvement of a previously patented invention did not give the patentee of the improvement patent any right to use the invention that was the subject of the original patent, or vice versa.

The Patent Act of 1836 stemmed from criticisms that patents were being granted for things that lacked novelty. The Act now required the inventor to distinguish his the invention and raised the required standard to “particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.” The Act transferred the patent office to the State Department.

In 1839, the law was amended to provide for a “two-year grace period for publication, or use of the invention, by the applicant before the filing of his patent application was submitted.” In 1849, the Patent Office was transferred from the State Department to the Department of the Interior. In 1850, the U.S. Supreme Court introduced the requirement that an invention had to be “non-obvious”, along with the previous requirement of being both new and useful.

In 1887 the United States joined the Paris Convention for the Protection of Industrial Property, requiring members to give patent applicants who were nationals of one member state the right to file an application in their own country and to have the date of the filing in their home country count as the effective filling date in the other. In 1925, the Patent Office transferred from the Department of Commerce to the Department of Labor. In 1930, the Plant Patent Act created the patent for plants invented by the applicant. In 1939, the two-year grace period was reduced to one year.

The 1952 Patent Act was the “culmination of 160 years of developing patent law, selectively incorporating some of the provisions in prior statutes, codifying sensible judicial precedents.” The Act lays out the basic format of present day patent law. Patent applications now had to include inventions that were “non-obvious,” include a definition of what the applicant believed would be infringement, a description of elements in functional terms, and loosened the requirements by joint inventors to file.

In 1994, the law was amended to comply with Uruguay Round Agreement Act, an international agreement that imposed some international minimum standards in patent protection. Among other things, the Act changed the U.S law with regard to minimum duration of a patent protection.

American Invents Act

The Leahy–Smith America Invents Act (AIA), enacted in 2011, made both substantive and procedural changes to the U.S. patent process. The act, which is more than 150 pages and 137 sections, has been described as “the

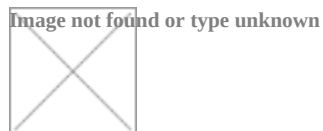
most comprehensive revisions of U.S. patent law in more than 50 years,” and even the USPTO has called it one of the most significant laws ever enacted by the U.S. since 1836. The reasoning behind the revision was to “promote harmonization of the United States patent system with... nearly all other countries with who the United States conducts trade and thereby promote greater international uniformity and certainly in the procedures used for securing the exclusive rights of inventors to their discoveries.” Thus, it recognized that the U.S. was out-of-step with the rest of the world and U.S. patent holders were vulnerable to conflict with international patent enforcement provisions.

Another reason for the passage of the AIA was to address speculative patent litigation – trolling – by people that might attempt unwarranted allegations of patent infringement in order to seek monetary gain through the threat of enforcement. Patent trolls are also known as a non-practicing entity, patent assertion entity, or patent holding company. For example, if a company develops a mobile app that allows customers to use a “Buy” button to purchase inventory. Unknown to the company, a patent troll holds the design patent or utility patent on the “Buy” button. The patent troll can take the company to court, insisting it pay a licensing fee on every sale that was made using their button.

The Boston University School of Law conducted a study, “The Direct Costs for Non-Practicing Entity Disputes,” on the cost of patent trolls on the United States economy. The study found that patent trolls cost American businesses more than \$29 billion in 2011, up from \$7 billion in 2005. Patent trolls typically rely on the complexity of patent laws against business who may have an inferior understanding. Thus, patent trolls usually avoid suing larger companies. The Boston University School of law study found that small and medium-sized entities made up 90 percent of the companies sued and accounted for 59 percent of the defenses in 2011.

The most important reform brought about by the AIA is the change in how the USPTO changed the right of priority from the old “first-to-invent” to the new “first-inventor-to-file.” The patent priority rights deal with the situation when two applicants file for a patent that for a nearly identical patent. Therefore the USPTO must decide which applicant is first in line, and has the right to file for a patent. Before the AIA, the United States was the only country to follow the “first-to-invent” system for priority of patent applications. When there were conflicting patent claims, this system sought to establish whom the original and true inventor was. This was a complex system involving lots of fact-finding, testimony, and a great deal of uncertainty. By contrast, the first-to-file system grants priority to the first inventor to file a patent application with the USPTO. This greatly reduced transaction costs and increased certainty in patent applications. Congress clearly stated that that is the first inventor to file with the USPTO, meaning a non-inventor applicant will not be granted a patent. The graph below illustrates the priority system before and after the AIA for two inventors who apply for a patent application for the same invention:

Figure 4 – Patent Filing Priority System before and after the AIA



U.S. patent law has a long history of encouraging inventors to market their invention, notify the general public of their patent rights, and the AIA reaffirms this commitment. The grace period is designed to help “encourage early public disclosure of new inventions,” while providing a safeguard for inventors to still patent their invention that is now public knowledge. After an inventor makes his invention known to the public, the AIA

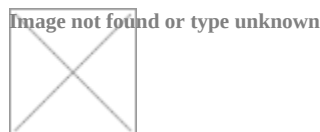
provides a one-year grace period where the inventor can decide whether to file for a patent to protect his rights.

A fundamental area of patent law is what falls under the definition of prior art. AIA added a somewhat vague addition to the end of the definition of what constitutes prior art. Prior to the AIA, a patent would be revoked through showing that the invention did not meet the requirement of being “non-obvious.” In determining if the invention was non-obvious, the USPTO would determine if the invention was obvious to a person of reasonable, similar, skill in the field. The AIA added to or otherwise available to the section dealing with prior art. The definition, in part, now reads: “(a) Prior art: A person shall be entitled to a patent unless—(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.” There is debate whether this new phrase, “otherwise available to the public,” creates an additional requirement, or simply a “catchall” category that is “consistent with the long held U.S. patent policy that inventions in public should not be given monopoly advantages of a patent.” The meaning of this addition is not yet known and will likely end up being decided by the court system., A potential consequence of this confusion is that it may lead to unnecessary and costly litigation to determine.

The AIA still requires that the application to disclose the best mode, or favored way, to use the invention. The rationale behind the requirement of best mode is to protect against the desire of some applicants/inventors to gain patent protection without making a full disclosure as required by the patent application. Failure to disclose the best mode of the claimed invention used to be grounds to invalidate a patent application. However, the AIA has largely defanged the requirement, and the failure to disclose the best mode is no longer a basis by which any patent may be invalidated or canceled. Still it is possible that an application could be invalidated, but it likely this would only occur in the most extreme cases.

The AIA altered the structure of fees based on the size of the business and added a third category to better reflect the type of entity applying for a patent. Patent applicant’s fees are classified as either a large (or general), small or micro entity. The general fee, attributed to large entities, will be applied to all patent applications unless the applicant can prove he is a small entity or a micro entity. The small entity category is used generally for businesses with less than 500 employees. The AIA added the third category – micro entity – in order to better represent small independent inventors. A micro entity are those applicants who would qualify as a small entity, but also is 1) a named inventor who has no more than four patent applications; 2) has a gross income of no more than three times the median household income, and 3) is not stepping-in-the-shoes-of-another applicant who would otherwise not qualify. The figure below shows the change in fees:

Figure 5 – Patent Applications Fees



Tax Strategy Patents

In the late 1990s, the USPTO issued patents on methods and strategies for new methods to minimize taxpayers’ liability of state and federal taxes. The AIA holds that tax strategies alone are insufficient, but did not completely close the door. The AIA now holds that the tax strategy ban on “a method, apparatus, technology, computer program product, or system used solely for financial management, to the extent it is severable from

any tax strategy or does not limit the use of any tax strategy by any taxpayer or tax adviser.” The AIA explicitly states that “[n]othing in this section shall be construed to imply that other business methods are patentable or that other business method patents are valid.”

Satellite USPTO Offices

For the first time the AIA was required to establish a minimum number of satellite offices spread across the United States. The purpose of which was to ensure geographical diversity and better access for patent applicants. Prior to this law, the only USPTO office was located in a fourteen building complex located in Alexandria, VA. The USPTO decided to open five additional offices located in Dallas, TX, Denver, CO, Detroit, MI, Ithaca, NY and San Jose, CA. As the writing of this paper, not all of these offices are open.

Conclusion

Intellectual property rights have, and continue to have, an important role in facilitating entrepreneurial growth, furthering scientific and economic progress. It serves an important role in protecting the inventions of people and the work of businesses. Copyright, trademark, trade secret, and patent protections stand on the front line of protecting these intellectual property rights. The USPTO is one of the United States’ oldest regulatory entities and continues to be active in protecting inventors and businesses. The USPTO has been reformed numerous times since its creation in 1790 to keep up with the fluid nature of IP. The recent passage of The American Invents Act exemplifies this continuous evolution of the USPTO.

The regulatory and structural changes that the AIA imposes help reduce transaction costs, increase certainty, and increases access to patent applicants. The satellite USPTO office will give inventors better access and alleviate the burden of the USPTO’s main office in Alexandria, VA. AIA’s change from a first-to-invent to a first-to-file process of patent filing brings the United States’ patent law in line with the rest of international patent law. Alignment of U.S. and international patent law will now better afford patent protection for inventors and business. The AIA continues to reflect the long trend in the United States of protecting domestic intellectual property both domestically and internationally.